

Karmel Stout

- Gravity **14.5 BLG**
- ABV **6 %**
- IBU **28**
- SRM **53.9**
- Style **American Stout**

Batch size

- Expected quantity of finished beer **12 liter(s)**
- Trub loss **5 %**
- Size with trub loss **12.6 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **15.2 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **11.7 liter(s)**
- Total mash volume **15.6 liter(s)**

Steps

- Temp **67 C**, Time **60 min**

Mash step by step

- Heat up **11.7 liter(s)** of strike water to **74.8C**
- Add grains
- Keep mash **60 min** at **67C**
- Sparge using **7.4 liter(s)** of **76C** water or to achieve **15.2 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|----------------------|----------------|-------|------|
| Grain | Strzegom Karmel 300 | 1 kg (25.6%) | 70 % | 299 |
| Grain | Bestmalz Red Active | 2 kg (51.3%) | 79 % | 30 |
| Grain | Chocolate Rye optima | 0.2 kg (5.1%) | 20 % | 1300 |
| Grain | Jęczmień palony | 0.2 kg (5.1%) | 55 % | 985 |
| Grain | Barley, Flaked | 0.5 kg (12.8%) | 70 % | 4 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------|-------|--------|--------|------------|
| Boil | lunga | 15 g | 60 min | 11 % |